CANADIAN IMPORTATION OF CATTLE FROM EUROPE

Because of the possibility of introducing foot and mouth disease, movement of cattle from European countries to Canada has not been considered safe in past years. In the early 1960's, however, the improved disease situation in France and in Europe generally, together with technological advances in laboratory testing procedures, made possible the development of procedures to safeguard against the introduction of foot and mouth disease from countries not traditionally free of this disease.

In considering such an importation, Canada, as a country on a continent free of foot and mouth disease, recognized the need for effective disease control measures.

Cattle importations are governed by a permit system. The procedures established are rigid and involve inspection, testing and quarantine both in the country of origin and again on arrival in Canada. Cattle selected must not be over nine months of age on entering the Canadian quarantine station and must not have been vaccinated against foot and mouth disease. Cattle intended for export to Canada are inspected in the country of origin by a Canadian veterinary officer at assembly points, on the farms of origin and during the official quarantine. They are examined and certified free of diseases such as bluetongue, Johne's disease, leucosis, *Vibrio fetus* and *Trichomonas* infections. They are submitted to various tests to detect virus or antibodies of foot and mouth disease, as well as tests for brucellosis, tuberculosis, leucosis and leptospirosis. During the official European quarantine period of thirty days the cattle are again submitted to tests for foot and mouth and other diseases. All feed and litter used during this quarantine period, as well as during the sea voyage to Canada, is provided directly from Canada.

On arrival at the Canadian quarantine station, all tests are repeated and a test for bluetongue disease is also carried out. The Canadian quarantine station is at Grosse Ile, an island in the St. Lawrence river about thirty miles east of Quebec city. The station accommodates approximately 240 head of cattle and fully meets the requirements of a maximum security facility. During the Canadian quarantine, a period of at least ninety days, Canadian cattle, swine and sheep previously tested and found negative to the above diseases are continuously exposed to the quarantine animals as susceptible controls. The Canadian Government reserves the right to dispose of all or any imported or test animals that show clinical symptoms of disease, or which are not classed as negative to any of the tests.

Following their release from the Canadian quarantine station, the imported cattle undergo a further three-month quarantine period on the importer's farm in contact with his susceptible cattle.

A total of 565 cattle have been imported from France and Switzerland since the first importation in 1965.

Contributed by Health of Animals Branch,

Canada Department of Agriculture.

Established in 1937

CANADIAN JOURNAL OF COMPARATIVE MEDICINE
REVUE CANADIENNE DE MÉDECINE COMPARÉE

The Research Journal of the Canadian Veterinary Medical Association
La Revue de Recherche de l'Association Canadienne des Médecins Vétérinaires

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Research articles in English or French pertaining to comparative medicine will be considered, provided they are not being submitted elsewhere. All manuscripts will be subjected to editorial action and to review for adequacy of scientific content.

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Published quarterly by the Canadian Veterinary Medical Association.

Correspondence should be addressed to: —

Canadian Journal of Comparative Medicine,
360 Bronson Ave.,
Ottawa 4, Ontario.

Subscription rates:

Canada	$5.00 per year
U.S.A. and British Commonwealth	10.00 per year
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Adresser toute correspondance à:—

Revue canadienne de Médecine comparée,
360 Ave. Bronson,
Ottawa 4, Ontario.

Authorized as second class mail Post Office Department, Ottawa, and for payment of postage in cash.

Formerly published by National Business Publication Ltd., Gardenvale, Quebec.

Vol. 32 — July, 1968

Differentiation of Duck Plague, Newcastle disease, Fowl Plague, and Duck Hepatitis Viruses

Serums from 5 duck-plague-convalescent ducks and antiserums produced against Newcastle disease, fowl plague, and duck hepatitis were tested for their ability to inhibit the formation of plaques by HDPAV. The cultures were inoculated with virus-serum mixtures constituted to contain approximately 55 PFU of HDPAV in a 0.2-ml and final serum dilution varying in 2-fold increments from 1:2 to 1:16 (Table III). Plaques were inhibited in the culture only when the homologous serum was employed. The plaques were equal in number to those plaques developed in the cultures that were inoculated with mixtures of virus and normal duck serum. These tests indicated that the plaque technique was applicable for the identification of duck plaque virus and its differentiation and nonrelationship to Newcastle disease, fowl plague, and duck hepatitis viruses.

DISCUSSION

The plaque technique proved most useful when it was applied to viruses passed either in ducks, chicken- or duck-embryo-cell culture. The plaques were indistinct when duck-liver tissue suspensions were employed. However, when liver tissue was passed in DE, the efficiency of plaque development increased. Using a suspension of chorio-allantoic membranes infected with the liver suspension, distinct plaques developed, but they were smaller in size than those obtained with virus from the 5th cell culture passage. The plaques obtained from this passage were small and medium in size. Those produced from the attenuated virus were uniform and of medium size. Morphologically, they were indistinguishable from those produced by the cell-passed virulent virus.

The plaque technique was used to assay the viruses and to determine their antigenic relationships. It was established by experiments concerned with neutralization of the viruses, using the plaque inhibition technique, that the DPLIVV and HDPAV were serologically identical and that they were not related to Newcastle disease, fowl plague, and duck hepatitis viruses.

ACKNOWLEDGEMENTS

The assistance rendered by Dr. R. Trautman in the computation of portions of the data collected and the excellent technical assistance of Mrs. Joan Grohoski are gratefully acknowledged.

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In order to facilitate the submission of manuscripts in a form which permits rapid and efficient editing, and to ensure uniformity of style, the C.J.C.M. has drawn up the following outline. It is felt that reference to these guidelines, and to a recent issue of the Journal itself, will enable secretaries to draft manuscripts requiring a minimum of structural change upon receipt.

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Manuscripts written in either English or French will be considered.
All parts of the manuscript, including footnotes, tables and illustrations, should be submitted on white paper, not flimsy, of a size 8½ x 11 inches.
All typing should be at least double-spaced and with a minimum of one-inch margins.
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Identify references in the text by Arabic numerals.
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